



**GCC Electrical  
Testing Laboratory**

المفتبر الفليبي لفمص المعدات الكهربائية

## Off-line Electrical Field Testing

This interactive 5 day seminar combines theoretical background with practical field experience to provide engineers and technicians with the vital knowledge for off-line electrical testing of power transformers and other high-voltage electrical apparatus. For each test, there will be an in-depth discussion of each measurement, physics behind the measurement, setup and test methodology and acceptance criteria. In-depth discussion of each measurement, its purpose and expected results. Doble specialists will train you to review and decipher apparatus test results so that they are clear and easy to understand.

Practical field testing demonstrations could extend training for a fourth and fifth day provided they can be coordinated well in advance along with information about objects to be tested.



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Education  
Course Code: **EXX1**



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## Off-line Electrical Field Testing



OCTOBER  
21 - 25  
2018



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## Objectives

**Upon completion of this course, the Participant will be able to:**

- What is the condition of my equipment?
- When should I retest?
- What tests and inspections should I perform?
- What maintenance should I perform and when?
- Have other utilities had this same experience?
- Should I remove this breaker/bushing/transformer from service or leave in service?

### Addressed to:

Electrical engineers and substation test technician working in operations, maintenance, engineering, or other service field in which knowledge of electrical testing methods and evaluation is required part of his job responsibility.

### Duration:

5 Full Days

### Location/Venue:

GCCIA HQ, Dammam

### Course Fees:

## PROGRAM

The Course program contains the following training outline:

### DAY 1-3

Power Factor & Capacitance; Power Factor Tip-up; Excitation Current; Turns Ratio, Leakage Reactance; Sweep Frequency Response Analysis; Winding Resistance.

### DAY 4

Tests and Inspections

### DAY 5

Maintenance to be done including deciding when to remove an electric equipment e.g. breaker, bushing, transformer, etc.



Electrical Testing & Analysis  
*online / offline*



Electro-mechanical inspection  
*offline*

